

Notice of Allowability

Application No.

10/671,330

Applicant(s)

SHELTON, CHRIS D.

Examiner

Lars A. Olson

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3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment received from the applicant on August 24, 2005.
2. ☒ The allowed claim(s) is/are 2-7 and 9-29.
3. ☒ The drawings filed on 25 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. On line 2 of Claim 27, the acronym "GSP" has been deleted and replaced with the acronym "GPS".
3. An amendment was received from the applicant on August 24, 2005.
4. Claims 1 and 8 have been canceled.

Reasons for Allowance

5. Claims 2-7 and 9-29 are allowed.
6. The following is an examiner's statement of reasons for allowance. The remote operated vehicle (ROV) system as claimed is not shown or suggested in the prior art because of the use of a remote operated vehicle system that is comprised of a topside, a fish that is fitted with a global positioning system (GPS) receiver, a position data transmitter that is operable to transmit GPS position data, a position data receiver that is operable to receive GPS position data, and an umbilical cable for interconnecting said fish and said topside, said umbilical cable having a communication path for relaying GPS position data between said topside and said fish, where said umbilical cable is

further comprised of a connector that is operable to detachably connect it to said fish, and is remotely operated by a detach command that is sent from said topside in order to detach said umbilical cable from said fish, as well as a tension sensor that is operable to measure tension in said umbilical cord and to cause said detach command to be sent to said connector if said tension exceeds a predetermined level. The prior art also does not show or suggest the use of a method of navigating a fish that is associated with an ROV system as claimed, said method being comprised of the steps of determining a route along which a fish will navigate, determining a plurality of GPS position data, providing said GPS position data to a topside of said ROV system, transmitting said GPS position data from said topside to said fish, and activating a movement control device on said fish that is operable to propel said fish from one location to another in response to GPS position data from said topside and a GPS receiver on said fish.

7. The prior art as disclosed by Patterson et al. (US 5,995,882) shows the use of a remote operated vehicle system that is comprised of a topside in the form of a ship, a fish or ROV with a GPS or position data receiver that is mounted on a upwardly protruding portion or antenna tower, an onboard power supply in the form of a battery, a movement control device that is operable to process position data and control movement of said ROV, and an optional umbilical cable for interconnecting said ROV and said topside in order to provide a communication path between said ROV and said topside. Joao (US 5,917,405) discloses a remote control apparatus for submersibles that is comprised of a remote system at an external location that includes a vehicle position and locating system receiver with a position data transmitter and receiver that is

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capable of receiving GPS information, in combination with a remote vehicle with a vehicle position and locating system having a GPS or position data receiver, a position data transmitter, and a second position data receiver that is capable of receiving GPS information from a second position data transmitter that is disposed on said remote system. However, none of the prior art cited shows or suggests the use of a remote operated vehicle system that is comprised of a topside, a fish that is fitted with a global positioning system (GPS) receiver, a position data transmitter that is operable to transmit GPS position data, a position data receiver that is operable to receive GPS position data, and an umbilical cable for interconnecting said fish and said topside, said umbilical cable having a communication path for relaying GPS position data between said topside and said fish, where said umbilical cable is further comprised of a connector that is operable to detachably connect it to said fish, and is remotely operated by a detach command that is sent from said topside in order to detach said umbilical cable from said fish, as well as a tension sensor that is operable to measure tension in said umbilical cord and to cause said detach command to be sent to said connector if said tension exceeds a predetermined level. The prior art also does not show or suggest the use of a method of navigating a fish that is associated with an ROV system as claimed, said method being comprised of the steps of determining a route along which a fish will navigate, determining a plurality of GPS position data, providing said GPS position data to a topside of said ROV system, transmitting said GPS position data from said topside to said fish, and activating a movement control device on said fish that

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is operable to propel said fish from one location to another in response to GPS position data from said topside and a GPS receiver on said fish.

Conclusion

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

9. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (571) 272-6685.

lo

September 6, 2005

LARS A. OLSON
PRIMARY EXAMINER

Lars Olson
9/6/05